

Committed to excellence



RUTRONIK
ELECTRONICS WORLDWIDE

YAGEO GROUP

YAGEO GROUP
BUILT INTO TOMORROW

V1.3.3

YAGEO GROUP
YAGEO

YAGEO GROUP
KEMET

YAGEO GROUP
PULSE

 **Telemecanique**
Sensors


YAGEO GROUP
YAGEO Nexensos


YAGEO GROUP
YAGEO Vitrohm


YAGEO GROUP
YAGEO XSEMI


Chip Resistors	04	Magnetics	13
Circuit Protection Components	05	Specialized Power	14–15
Through Hole Resistors	06	Wired Communications	16
MLCC Multilayer Ceramic Capacitors	07	Wireless Components	17
Ceramic Capacitors	08	Standard Power	18
Polymer / Tantalum / SuperCapacitors	09	Pt RTD Sensors	19
Film Capacitors	10	Through Hole Resistors & SMD Resistors	20
Aluminum Electrolytic Capacitors	11	Power MOSFETs	21
Sensors & Actuators	12	RUTRONIK LOGISTICS	22-23


Our Product Portfolio


 Semiconductors


 Boards & Systems

 Passive Components

 Storage Technologies

 Electromechanical Components

 Wireless Technologies

 Displays & Monitors

Our Initiatives



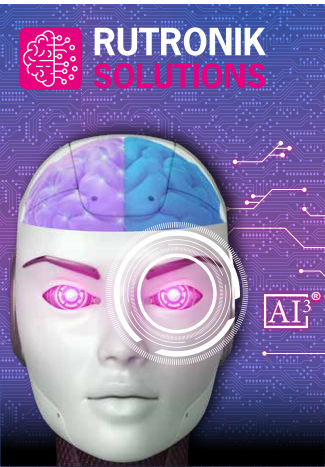





















Committed to excellence

Consult – Know-how. Built-in.
The Technical Competence from RUTRONIK
Worldwide and individual consulting on the spot by competent sales staff, application engineers & product specialists.

Components – Variety. Built-in.
The Product Portfolio from RUTRONIK
Wide product range of semiconductors, passive and electromechanical components, displays & monitors, boards & systems, storage and wireless technologies for optimum coverage of your needs.

Logistics – Reliability. Built-in.
The Delivery Service from RUTRONIK
Innovative and flexible solutions: from supply chain management to individual logistics systems.

Quality – Security. Built-in.
Quality without Compromise from RUTRONIK
The integrated management system (IMS) encompasses quality control, information security, environmental protection, occupational health and safety.



YAGEO Group – Built into Tomorrow





- Chip Resistors
- MLCCs
- Leaded Resistors
- Circuit Protection



- Tantalum
- MLCCs
- Film / E-Caps
- Sensors & Actuators
- Magnetics



- EMC/EMI Components
- Power Magnetics
- Transformers
- Antennas & LTCC Filters



- Limit Switches
- Inductive & Capacitive Sensors
- Photoelectric Sensors
- Ultrasonic Sensors
- Pressure Sensors
- RFID Systems
- Cloud Connected Sensors
- Sensors for hazardous location dust
- IO-Link Master
- Cordsets and connectors



- Platin RDD Sensors
- PCB
- SMD (solderable/sinterable)
- Sensor Elements with Wires
- Ceramic & SOT housed



- Shunt
- MELF
- Leaded Resistors
- Low Power Wirewound
- High Power Wirewound



- MOS Transistors
- Ultra- Low R_{on}
- Fast-Reverse Recovery
- Voltage up to 900 V
- Ultra- Low FOM



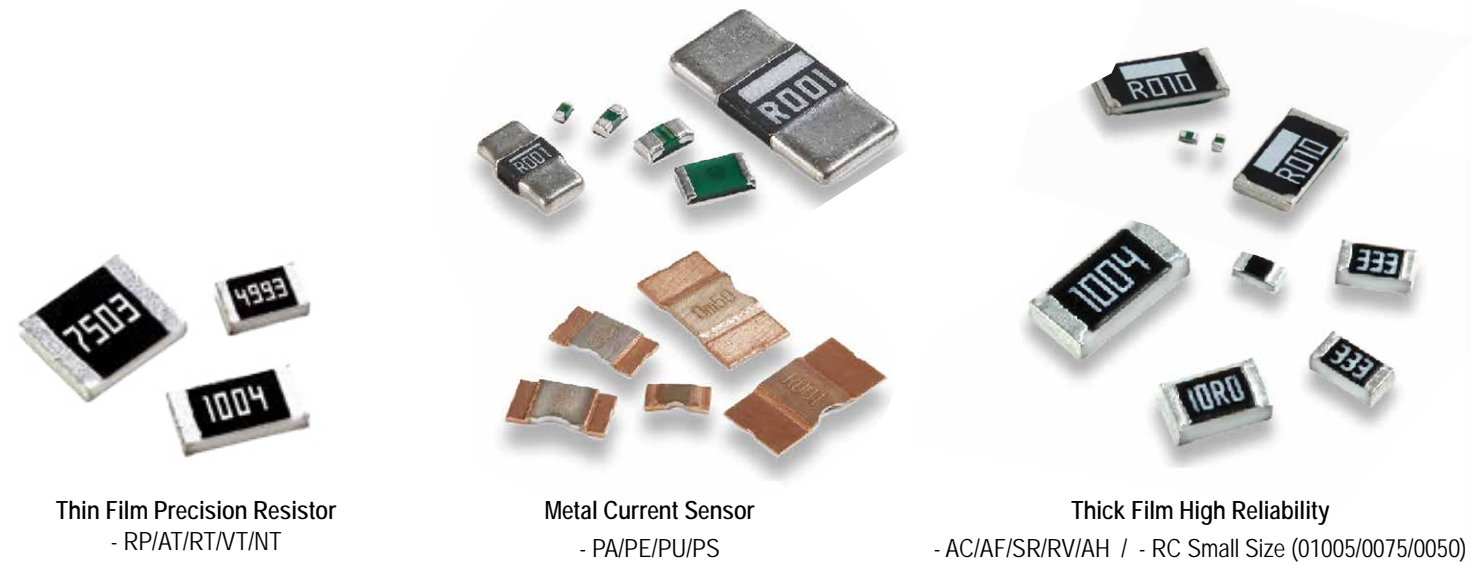
More about YAGEO Group



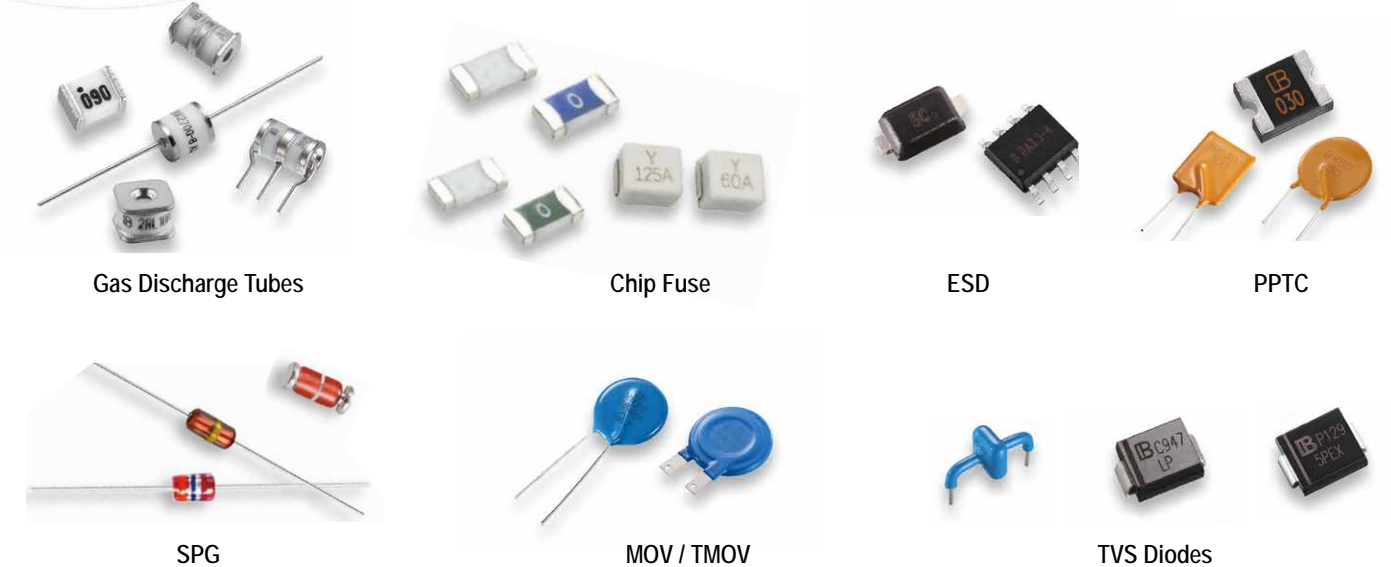
- YAGEO Group's Leading Market Position**
- No.1 in Chip Resistors
 - No.1 in Discrete LAN Magnetics
 - No.1 in Polymer Tantalum
 - No.1 in Pt Temperature Elements
 - No.3 in Ceramic Capacitors (MLCC)
 - No.3 in Inductors and Automotive Magnetic Products



Chip Resistors



Circuit Protection Components



- World's 1st with 30%+ of global capacity
- 1st to launch metal current sensor 01005
- Obtains UL 2799A, the Highest Platinum Rating for Zero Waste to Landfill
- Sulfur Resistant & High Stability
- Sustainability Product, Lead Free Option
- AEC-Q200 qualified (for Automotive Grade)



- Our wide product portfolio fulfills most customer needs, making us a top choice for your primary sourcing
- Market leading at overcurrent and overvoltage protection feature
- Fully vertically integrated semiconductor manufacturing process



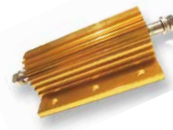
Through Hole Resistors



Melf



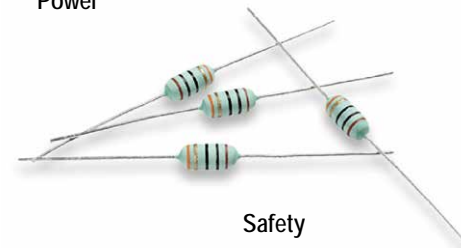
Power



Shunt Resistors



Safety



Pulse

YAGEO GROUP
YAGEO

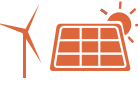
- One of the major market providers
- 3 factories in Asia and Europe
- 90 years of manufacturing experience in Through-hole resistors
- AEC-Q200 qualified (for Automotive Grade)
- IATF16949 certified
- UL, VDE certified



Automotive



Industrial



Alternative Energy

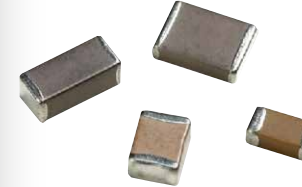


Power



Consumer Electronics

MLCC Multilayer Ceramic Capacitors



High Voltage
- HV



High Frequency
- CQ / AQ



Soft Termination
- CS / AS

High Capacitance & High Voltage
- HCV X7R

High Capacitance
- HC

Automotive Grade
- AC

YAGEO GROUP
YAGEO

- Various case sizes from 01005 to 2220 (inch)
- High capacitances for Class I and Class II
- Complete high frequency product range up to 150°C
- AEC-Q200 qualified for Automotive Grade
- Rated voltage up to 3 kV



Automotive



Industrial



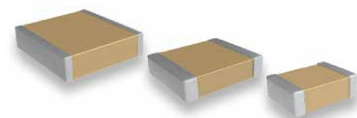
Communication



Consumer Electronics



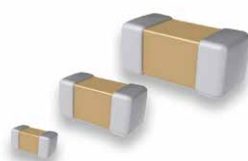
Ceramic Capacitors



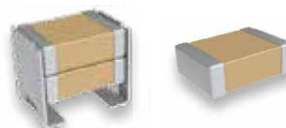
KC-LINK™
For Fast Switching Semiconductors



KONNEKT™
High-efficiency and High-Density Power Applications



HiQ-CBR RF
Automotive Grade



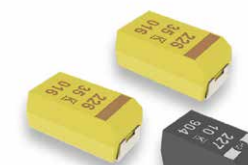
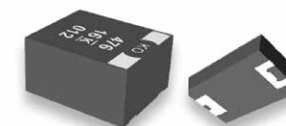
Flex Mitigation
Flex Term, VW80808, Open Mode, Floating Electrode, KPS



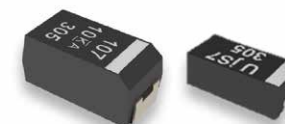
Safety Certified and AC Rated
SMD and Leaded

Polymer / Tantalum / SuperCapacitors

Polymer Tantalum
High Energy Low Profile



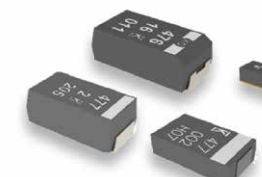
Tantalum Capacitor
MnO2



Polymer Tantalum
Automotive Grade



SuperCapacitor



Polymer Capacitor
Commercial Grade

- Class I dielectrics COG(NP0) and U2J
- High Voltage MLCC's rated ≥ 500 volts
- Commitment to large case size MLCC's from 0805 – 3640 (EIA)



Automotive



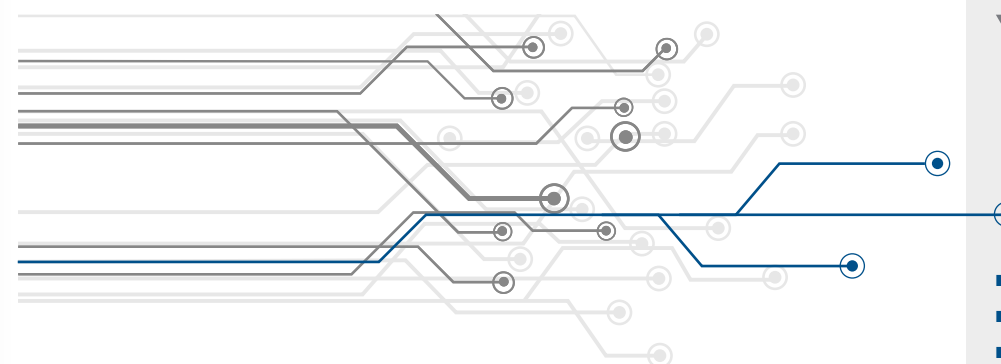
High Voltage



High Reliability



Power



Automotive EV/HV & ADAS



Industrial



Consumer Electronics



Medical



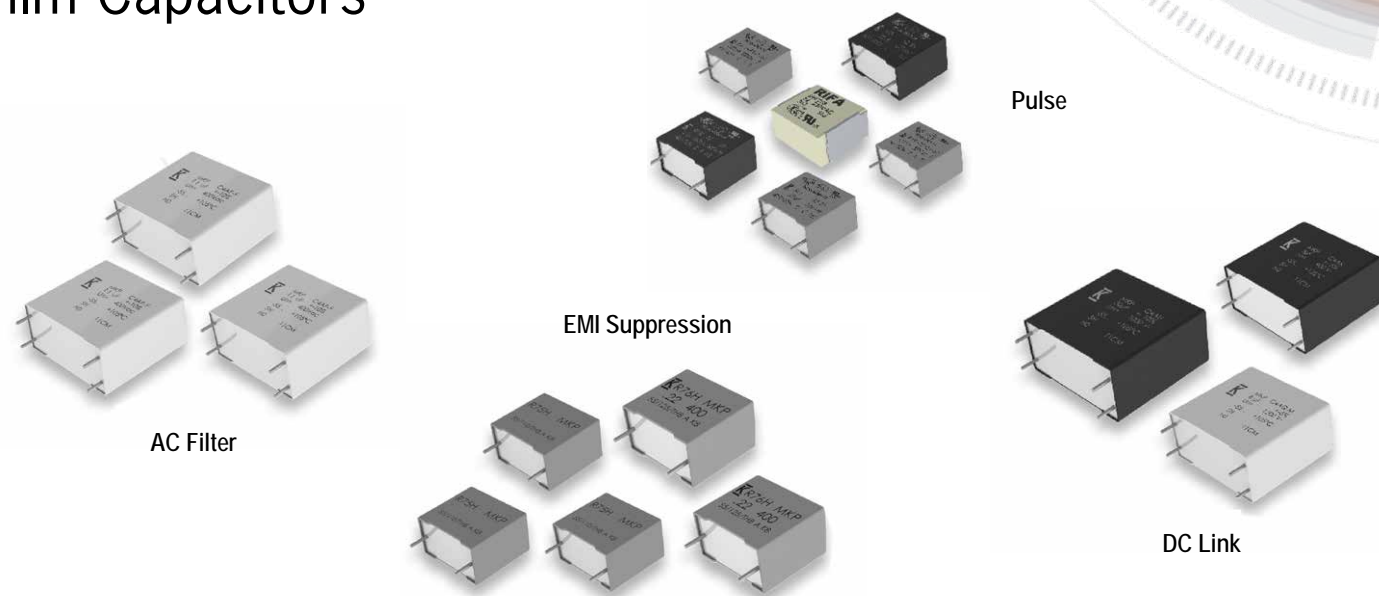
Telecom



Communication

- Wide portfolio
- Leading Edge Technology
- Auto Grade 1st to market
- Customizing solution
- Fully covered market segments (Consumer to Space)
- Localized service and support
- Engaged with top players in each segment

Film Capacitors



Aluminium Electrolytic Capacitors



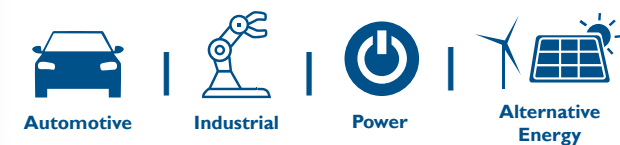
YAGEO GROUP
KEMET

- Self healing capability
- Miniaturization
- World 1st 135°C polypropylene film capacitor
- Withstanding harsh environmental conditions
- Low ESL for high frequency
- High reliability with extended life
- AEC-Q200 compliant

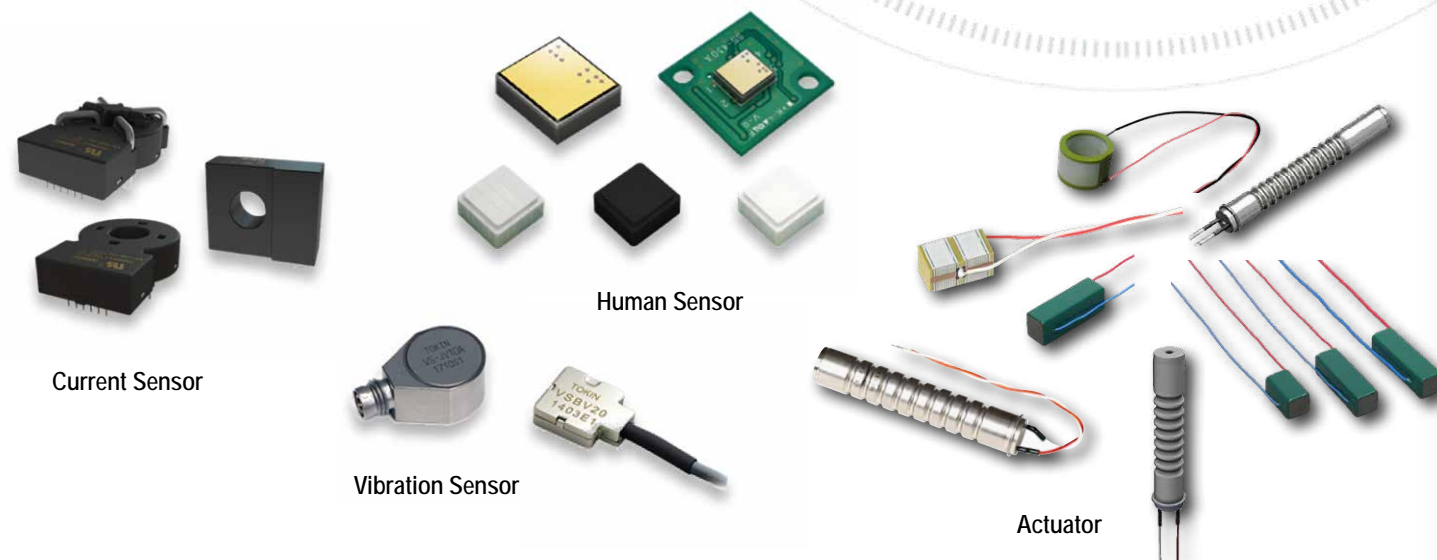


YAGEO GROUP
KEMET

- Hybrid design, extremely high ripple current and low thermal resistance performance
- The first axial & radial crown SMD on the market
- Friendly to base cooling design, flexible ways of installation
- Anti-vibration design, 20 G
- Shortest LT with competitive price



Sensors & Actuators

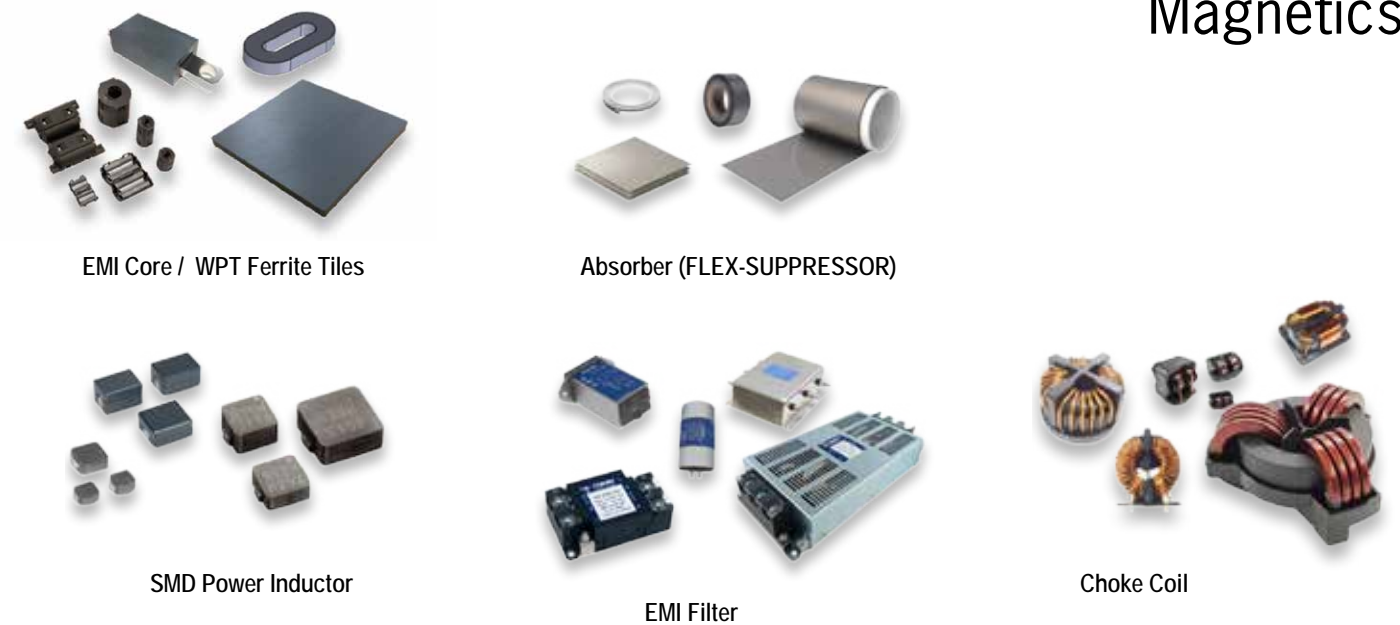


YAGEO GROUP
KEMET

- High sensitivity, fluxgate-based current sensors
- High performance multilayer piezoelectric actuators
- Ultra compact and low profile pyroelectric infrared sensors (5.0 x 4.8 x 1.7 mm)
- High sensitivity, built-in amplifier vibration sensors



Magnetics



YAGEO GROUP
KEMET

- Original unique magnetic materials
- First class automotive grade safety, reliability
- Ultra-high frequency effect absorber (up to SHF band)
- High rated voltage choke coil (up to 1,000 V AC/DC)
- 50 G vibration resistance power inductors
- Ultra compact and high-performance EMI filters





Specialized Power



PFC - Choke 3-Phase



Current Transformer



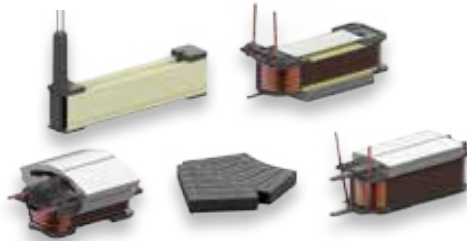
Solenoid



Rogowski Coil



CCT -
Combined Current Transformer



Motor Coil



Flexible Rogowski
Coil



LLC Transformer
3-phase

YAGEO GROUP PULSE

- PFC choke and LLC transformer for on board chargers up to 22kW
- CT, CCT and Rogowski coils for various measuring and billing applications such as smart grid and smart metering
- Motor coils for Hybrid cars, electric supercharger, linear motors for industrial and medical applications
- Solenoids for various automotive and industrial applications



Specialized Power



Power Inductors



Isolation Transformers



Common Chokes



Custom Power Magnetics



Power Transformers



Current Sense Magnetics

YAGEO GROUP PULSE

- Specialized and custom power magnetics
- High power density and variable mechanical mounting
- Power bead inductors with high performance for Vcore power application
- IATF catalogue products



Wired Communications

Discrete Communications
Magnetics LAN



Automotive Communication
Magnetics (BMS & IVN)



Integrated Connector Modules (ICMs)



Connectors & Cages



Discrete Communications Magnetics WAN

YAGEO GROUP PULSE

- Research, design and manufacture magnetic products and connectors used in through-wire communication systems to filter, transmit and isolate communication signals
- World's #1 in LAN Discrete Magnetic products
- Technology and market leader in Integrated Connector Module Magnetic products (ICMs)
- Technology and Market leader in automotive magnetic products



Wireless Components



3D Antennas
LDS/LAP/FluidANT



Embedded Antennas
Ceramic/Helical/FPC/Stamped



Vehicular
Antennas



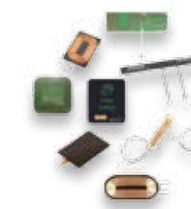
External/ In-Building
Antennas



LTCC based BPF, LPF, Balun, Diplexer,
Triplexer, Balanced BPF, and Coupler



Outdoor
Antennas



Internal Antennas
FPC/PCB/NFC/WPC/LCP Antennas



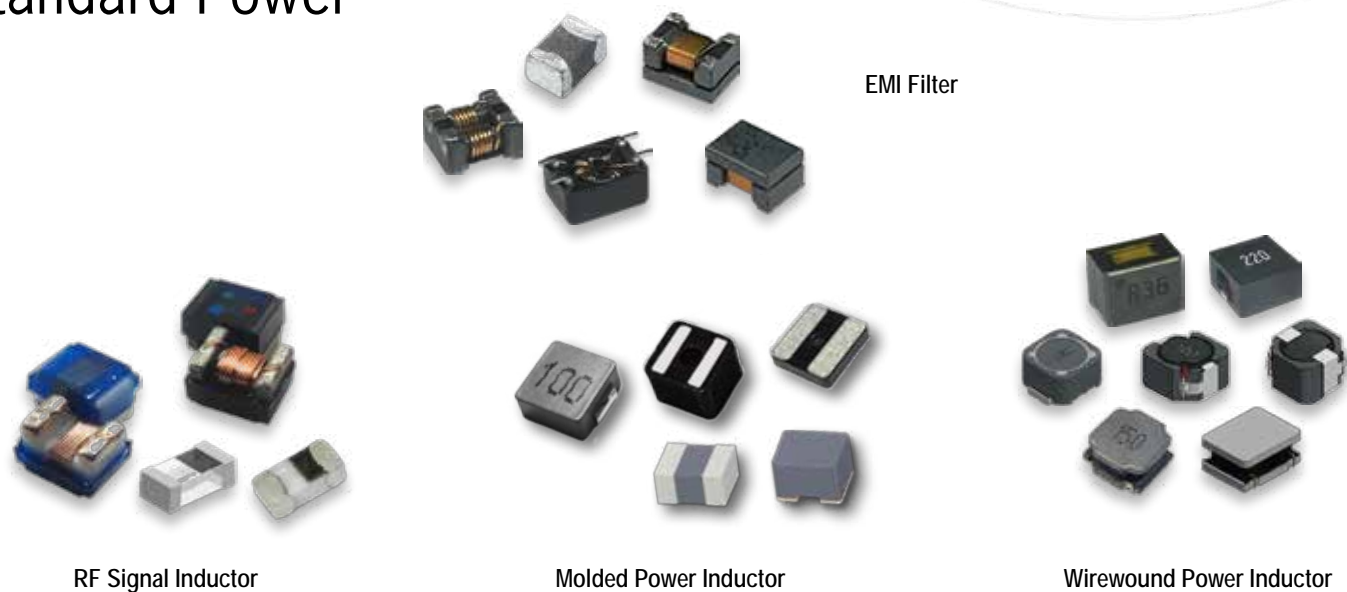
Cable & Mounting
Solutions

YAGEO GROUP PULSE

- Wide range of antenna options including flexible printed circuit board (FPC), PCB, direct mount, magnetic mount
- Frequency Bands from 13.56MHz to 8500MHz
- WiFi, Bluetooth, BLE, UWB, Zigbee, MiMo, GNSS, NTN, LTE, 5G FR1
- IoT, SmartGrid, meters, remote monitoring, sensor networks
- Customized solutions



Standard Power

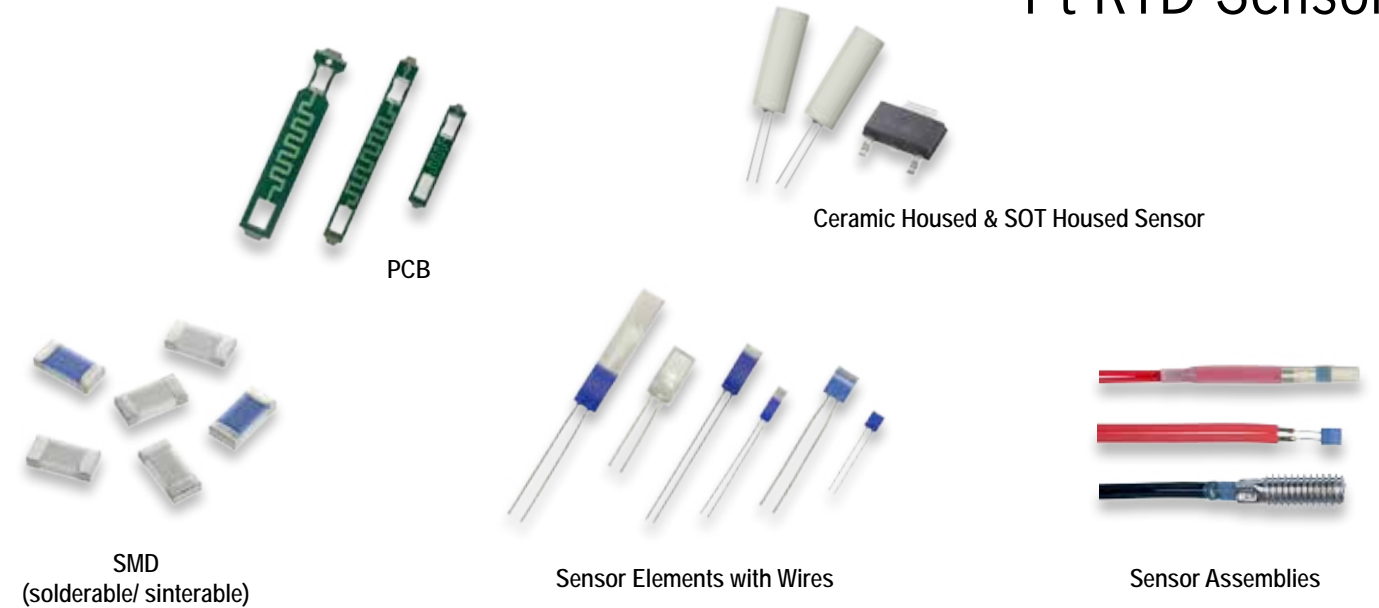


YAGEO GROUP PULSE

- No physical air gap and zero core gap loss (molded)
- High & soft saturation current, high power density
- High insulation resistance, high breakdown voltage
- Higher operating temp. and no thermal aging
- Cut off frequency up to 6GHz (EMI filter)
- High impedance @ low frequency - high frequency (EMI filter)



Pt RTD Sensors

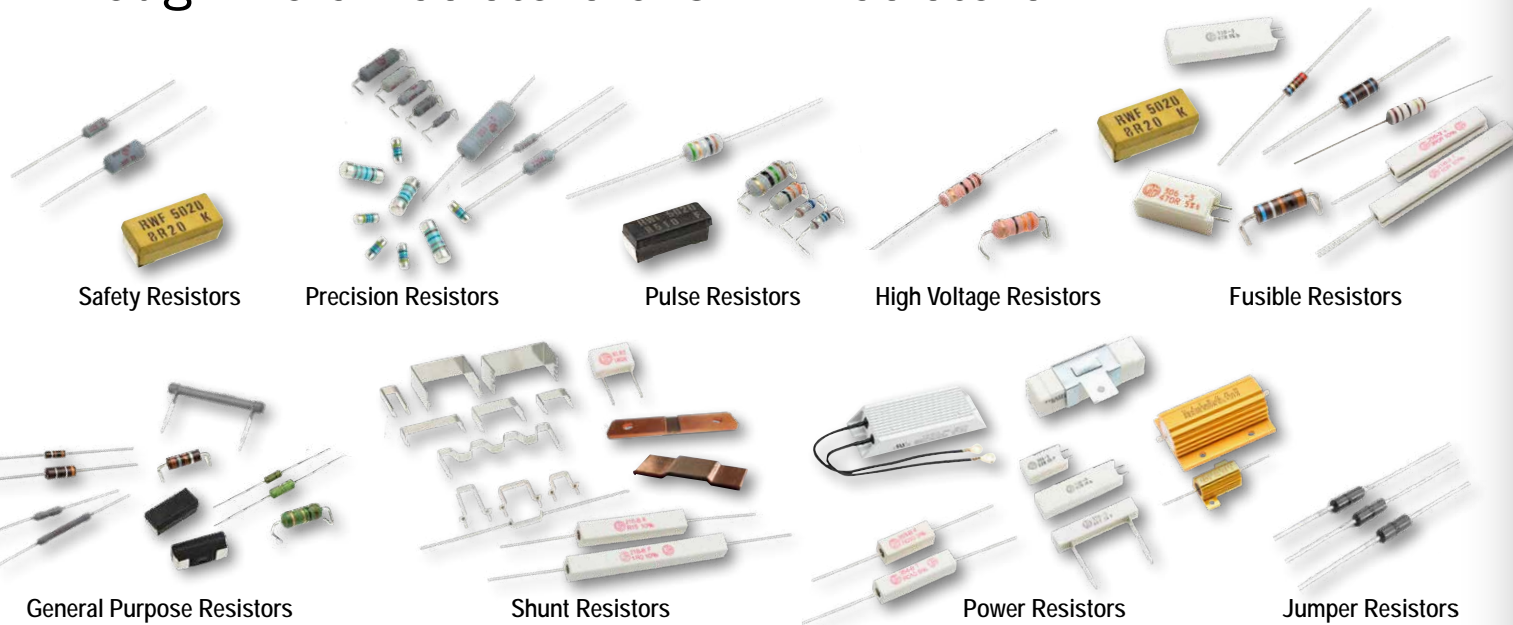


YAGEO GROUP YAGEO Nexensos

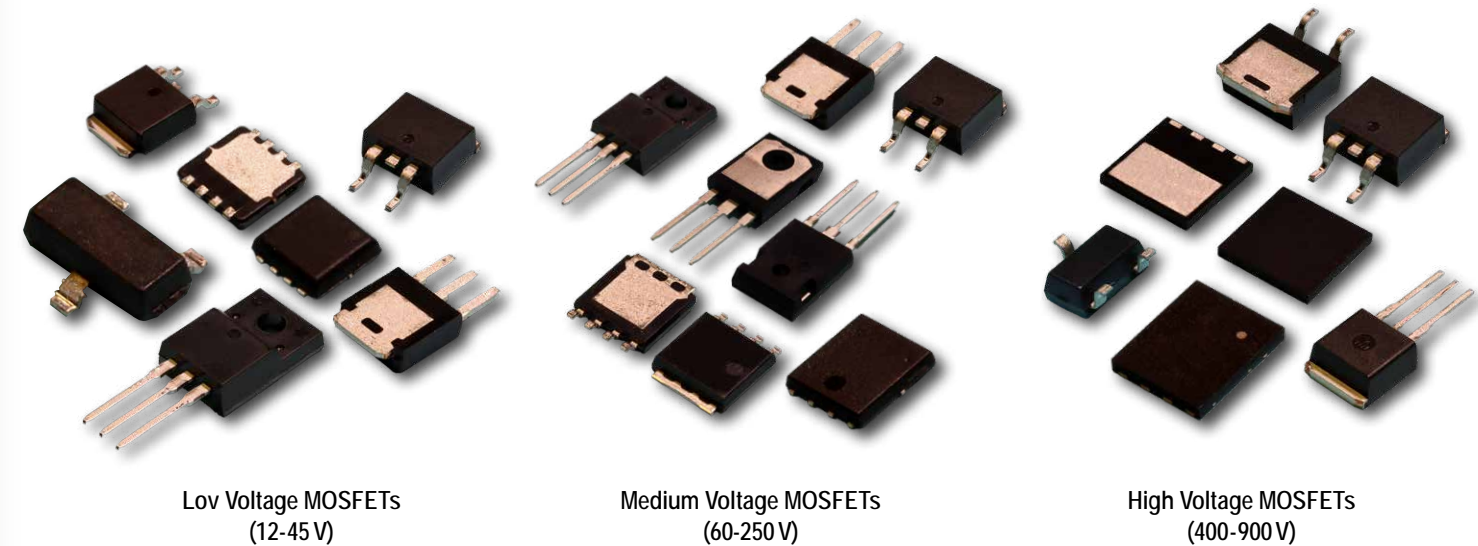
- Pt temperature sensor pioneer since 1906, decades of experience and expert knowledge
- Global leader for platinum thin film technology
- High long term stability
- Interchangeability
- Broad temperature operating range
- Fast response time
- Automotive qualified products available
- Sensors engineered to custom applications



Through Hole Resistors & SMD Resistors



Power MOSFETs



- Long-standing history: Proven reliability since 1933
- Tailored solutions for diverse needs
- Wide product range of Resistors for various applications
- Encourages employee-driven improvements
- Global presence: Strong European focus with global reach
- Quality commitment: High standards in product development



- Single and Dual N- and P-Channel silicon Power MOSFETs from 12 V to 900 V
- Low on-resistance, exceptional drain current handling and high switching speeds for efficient power conversion
- Best solutions for heat dissipation: PMPAK 3x3, PMPAK 5x6, TOLL
- Easy-to-design and cost-saving solutions: TO-252, TO-262, TO-220, TO-220CFM, SO-8
- Compact designs: SOT-723, SOT-23, SOT-89, WLCSP, DFN





SUPPLY CHAIN MANAGEMENT From Procurement to Delivery



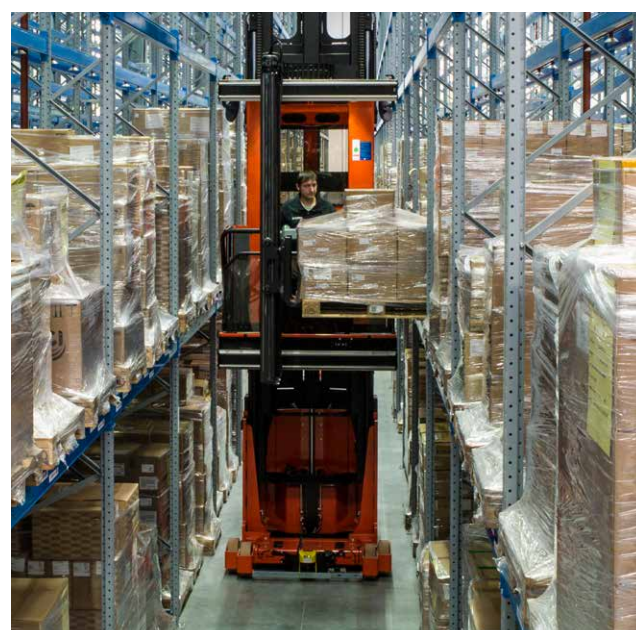
Fierce competition, increasing cost pressures, shorter product lifecycles, and widely varying delivery times require new solutions. Logistics solutions that help you produce faster, more cost-effectively, and above all, uninterrupted.

The warehouse and logistics center includes approximately 8,600 m² of storage and order picking space. There are also three platforms with approximately 6,000 m² of storage space. This provides space for up to 11,000 pallet locations, approximately 185,000 normal rack locations, and an order buffer of approximately 3,000 locations. The latest building and energy technology has been incorporated to ensure maximum energy efficiency, while a photovoltaic solar panel system has been installed on the roof. This generates peak values of up to 1 megawatt. Approximately 60% of the total energy is used for consumption



Permanently
available

More than
28 Billion Parts

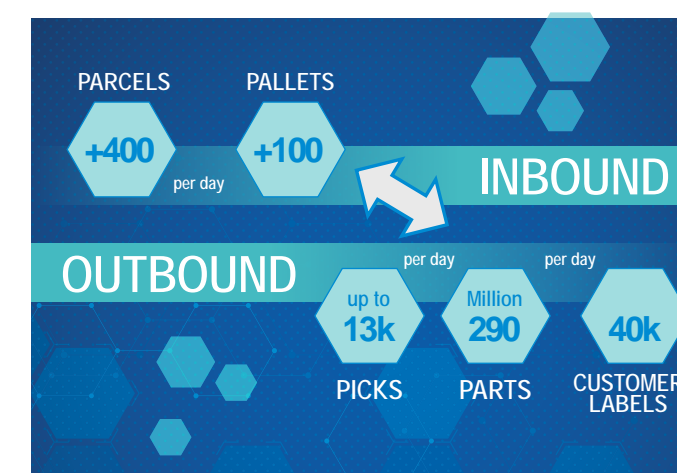


The benefits at a glance

Worldwide shipping and support in accordance with German standards of quality	→	Quality guaranteed regardless of national standards
Business model can be scaled worldwide	→	Adapted to local conditions
Identical level of service and support for all customers across the globe	→	Coordinated communication at all levels
In-house, high-performance data center	→	Data security via in-house data storage (in-house data center)
Single data source worldwide	→	Same level of information for all employees worldwide
Global logistics solutions and eProcurement traceability	→	Outstanding flexibility and traceability around the world

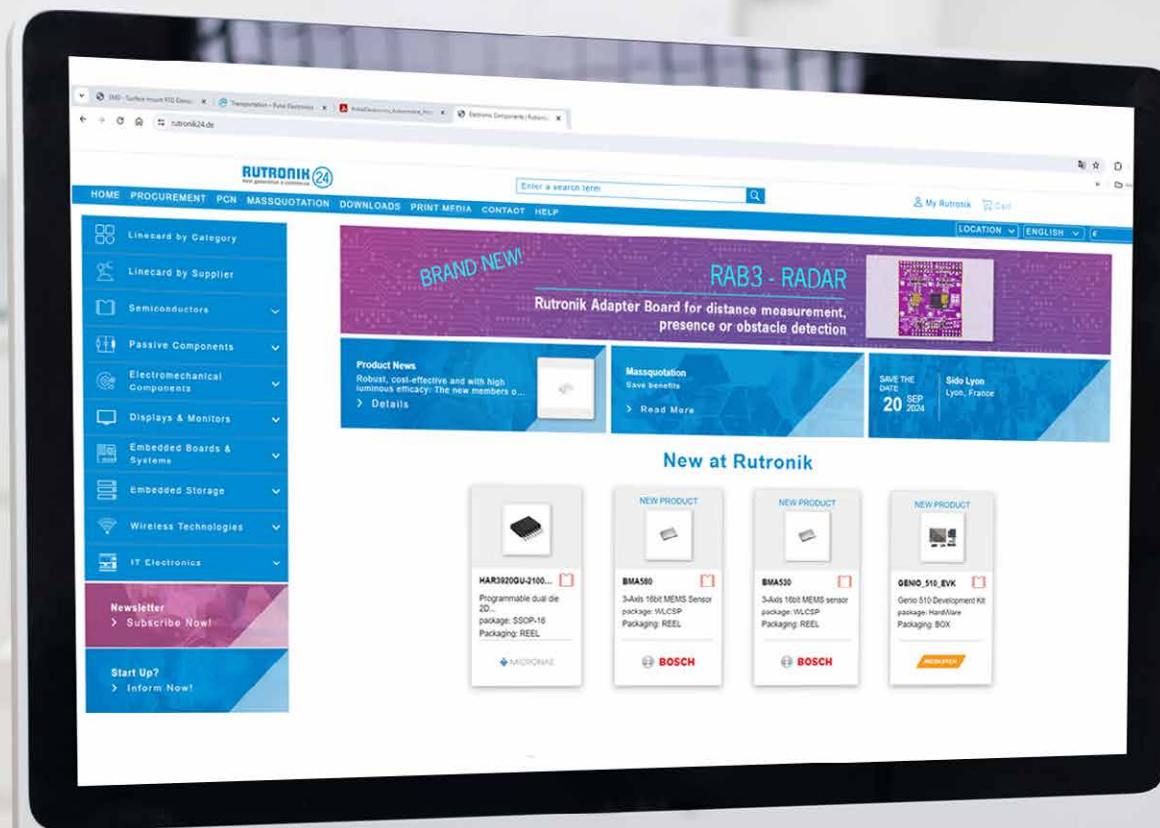


Thinking **Globally** | Acting **Locally**



Shipping | Daily **Performance**

Committed to excellence



RUTRONIK 24
next generation e-commerce

E-COMMERCE MADE EASY

www.rutronik24.com

Find your regional Rutronik contact !



info@rutronik.com | www.rutronik.com

Digital Media



Latest updated version